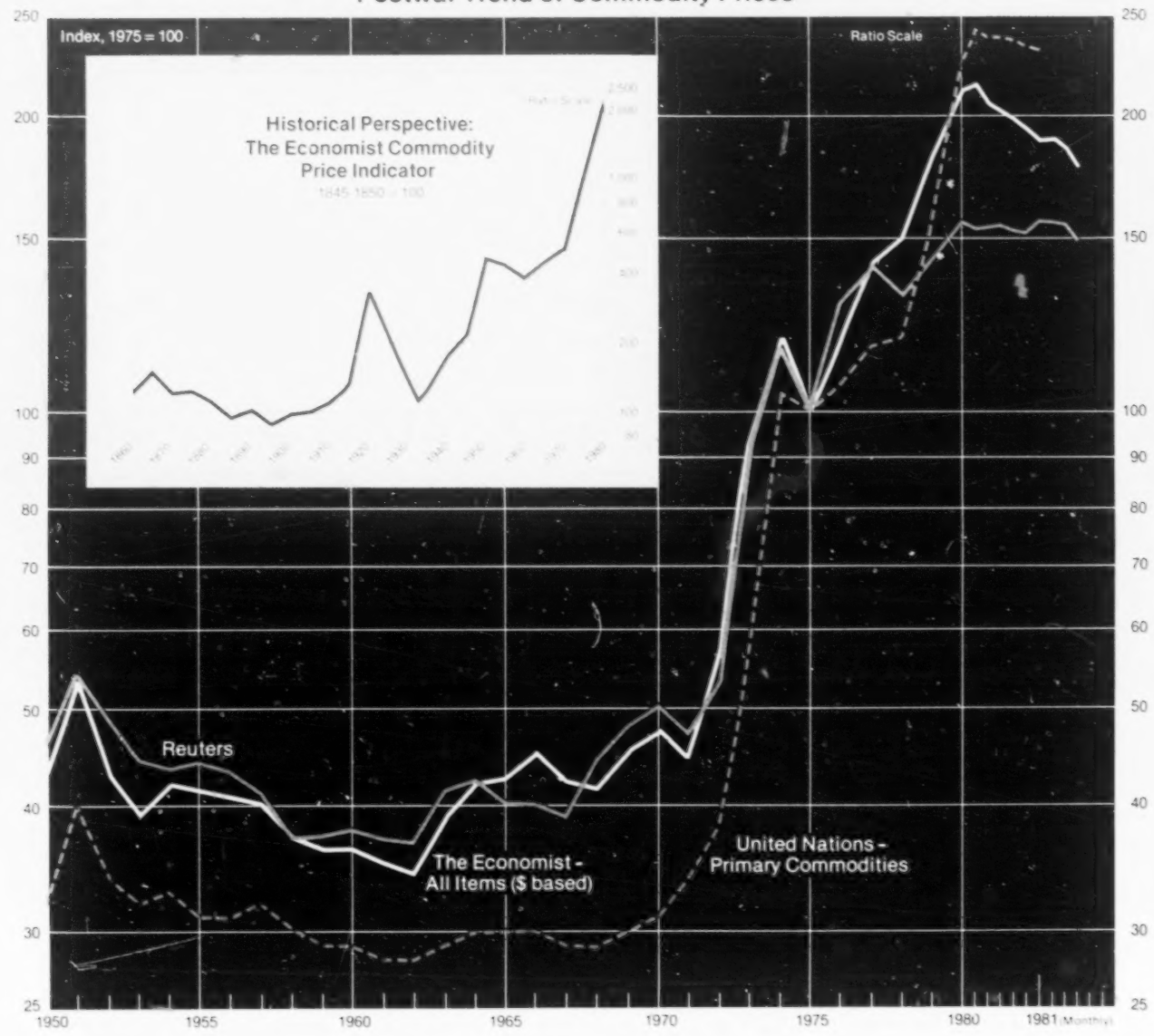
The Conference Board

Commodity Prices in World Markets

Economic Road Maps
Nos. 1912-1913 October, 1981

Not many statistical series can claim an ancestry as long as those for commodity prices. As early as 1845, *The Economist* of London started publishing an index of commodity prices primarily in order to draw attention to the rise in prices following the discoveries of gold in the United States and Australia. Britain at the time was the world's leading consumer of raw materials and food, and prices quoted in London were representative of world trade in commodities. Since the end of World War II, however, prices quoted in the U.S. market have progressively gained in importance as world measures.

Postwar Trend of Commodity Prices



Three broad commodity price indexes are plotted on page 1. These indexes differ with respect to the number of commodities included, the type of prices they cover, and the weights assigned to each commodity. The U.N. Primary Commodity Index, by far the most comprehensive of the three, reflects prices of 61 commodities (the nonferrous base metal index is compiled separately and is not part of the primary index, while base metals are part of both *The Economist* and the Reuters index). *The Economist* index covers less than half of the commodities included in the U.N. index, and Reuters index includes only 17 commodities. Weighting patterns differ substantially, with probably the most important difference being that crude petroleum accounts for half of the total weights in the U.N. index, but is not included at all in the other two.

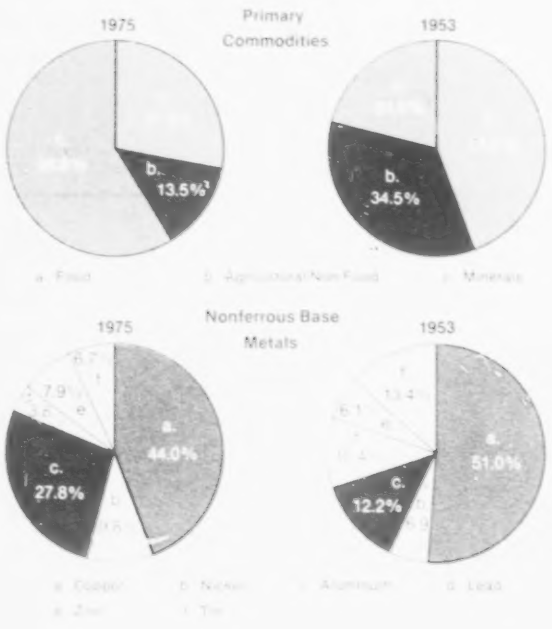
Commodity price indexes can also differ with respect to the currency in which the prices are quoted. For example, the British pound was strenghtening against the dollar during the years 1977-1980, and this dampened the rise in *The Economist's* sterling-based price index relative to the rise in the dollar-based index for the same set of commodities (chart at top of page3).

In spite of the substantial differences among the three indexes, all show a broadly similar pattern of changes in commodity prices. All show a decline between the Korean War boom and 1962, followed by some increase. The unprecedented rise during 1972 and 1973 is registered by all three indexes, as is the 1975 decline reflecting recession. Between 1972 and 1974, commodity prices rose faster than ever before. On each previous occasion when prices rose significantly—such as during wars—the high levels were not maintained for long. Rather, the run-up was followed first by sharp declines and then by a prolonged period of small declines. But this did not happen in the 1970's, and the end of the decade prices were substantially higher than those of the 1972-1974 period.

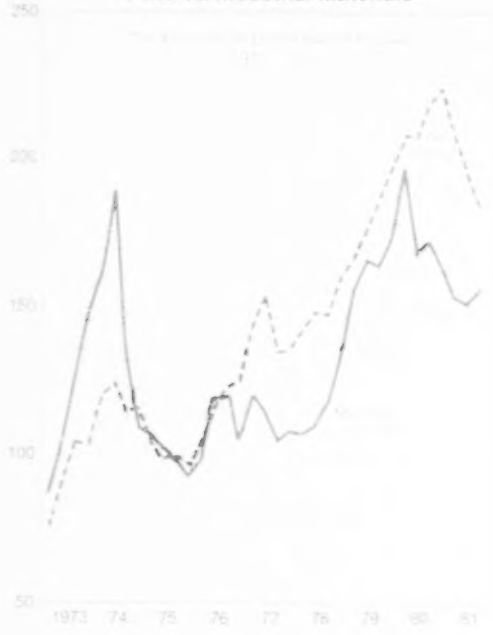
Primary commodities are basically unprocessed or semiprocessed raw materials used in the manufacture of other goods. Their prices are characterized by wide fluctuations related to shifts in demand and supply.

Prices of metals and minerals depend heavily on the needs of industrialized countries. When economic growth is steady in these countries, commodity prices tend to be stable, but

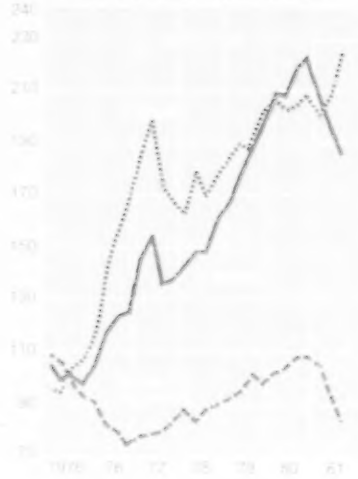
How the U.N. Indexes are Made Up



Food vs. Industrial Materials



Effect of Currency Movements on Commodity Indexes

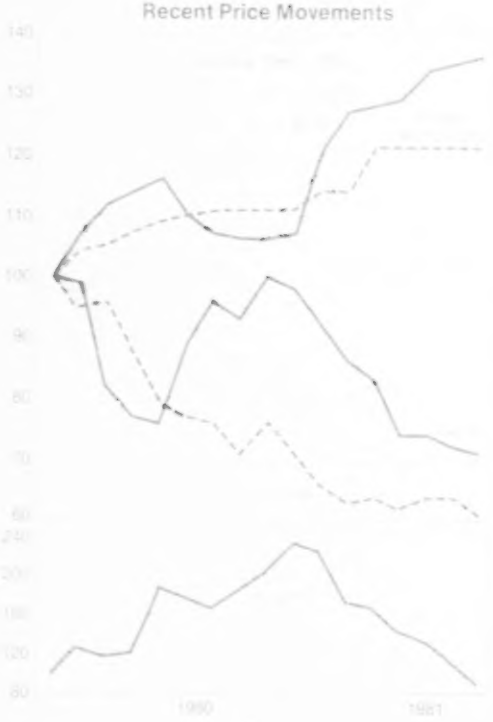


booms send commodity prices soaring and declining industrial activity depresses prices (see chart at bottom of page 4). Food prices, on the other hand, are mostly influenced by supply factors, that is, by weather and crop conditions. In the case of agricultural commodities that are industrial materials, both demand and supply are important price factors. Rubber and sisal are representative examples. The onset of floating exchange rates brought a further element of uncertainty into the volatile commodity price system by encouraging speculative buying as a hedge against changing rates.

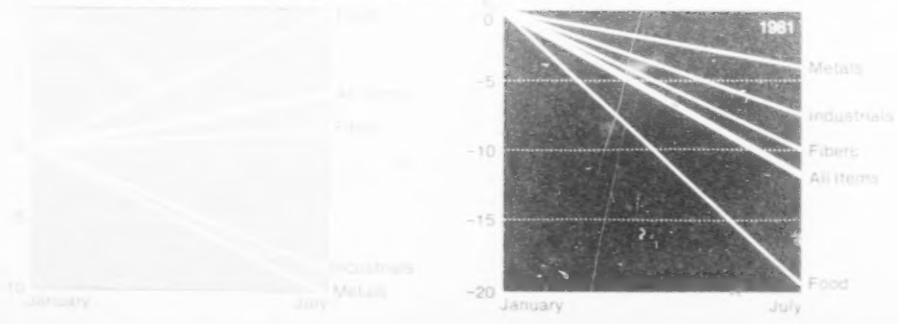
Reasons for the decline in recent months include soaring interest rates, which make financing of commodity inventories very expensive, and slackening business activity. The wide fluctuations in commodity prices can create problems for both consuming and producing countries. Most developing

Prices of Selected Internationally Traded Commodities

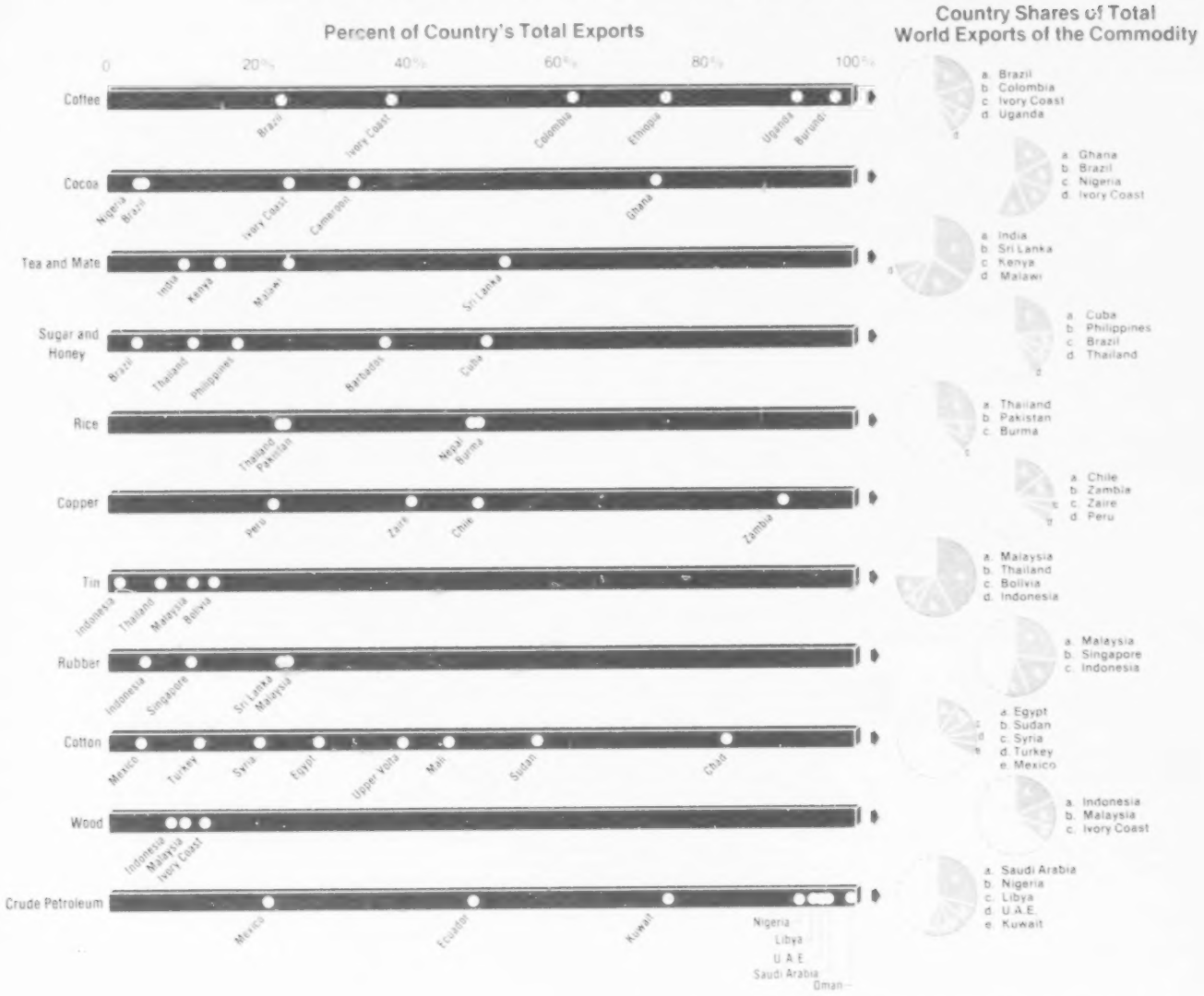
Recent Price Movements



Changes in Major Commodity Price Indexes, 1980 and 1981

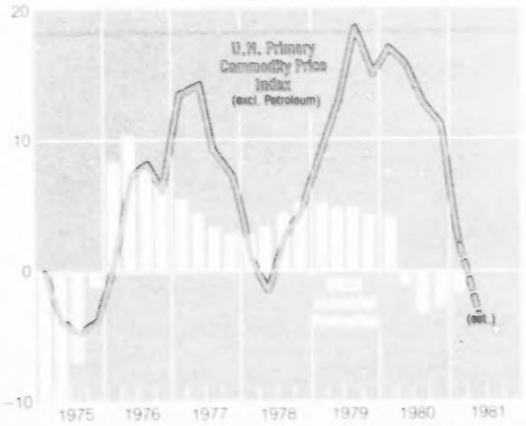


Importance of Commodity Exports of Developing Countries



Industrial Production and Commodity Prices

Percent Change from Year Earlier



countries depend on commodity exports for the bulk of their export earnings, with some countries relying almost entirely on three or fewer products, and wide price changes are very disruptive to their economies. Producing countries have tried to stabilize or raise prices and to restrict production numerous times, but most schemes ended in failure. The creation of OPEC is by far the best known example of a successful effort to control the price of a commodity on the part of producers. For a number of years one of the major issues in the "North-South" dialogue has been the problem of reaching an agreement on a price stabilization mechanism. Success has so far been elusive, but the issue will come up for discussion again when government leaders of the two groups meet in Mexico this month.

Eva Culen

Sources: United Nations; *The Economist;* Reuters; Organization for Economic Cooperation and Development; The Conference Board.

ECONOMIC ROAD MAPS

Eva Culen, Editor — Chuck N. Tow, Lead Chartist

Prepared in The Business Conditions Analysis Department—Lora S. Collins, Director

Prices for Quantities of this chart will be supplied on request to Information Service.

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U.S. Regional Projections to the Year 2000

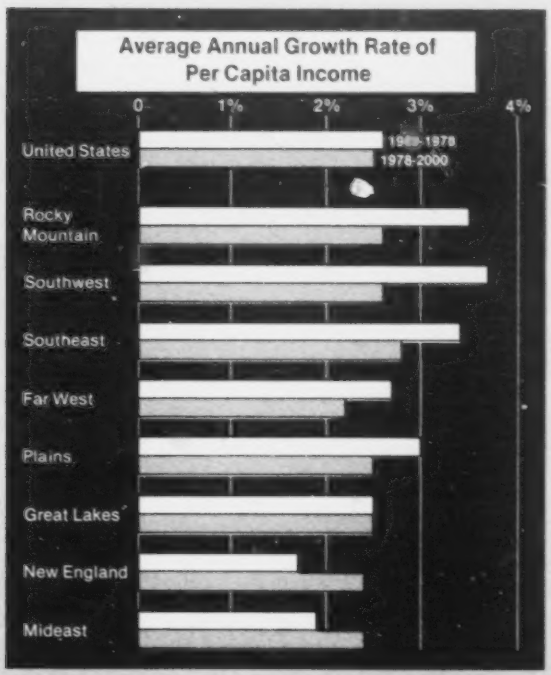
Economic Road Maps

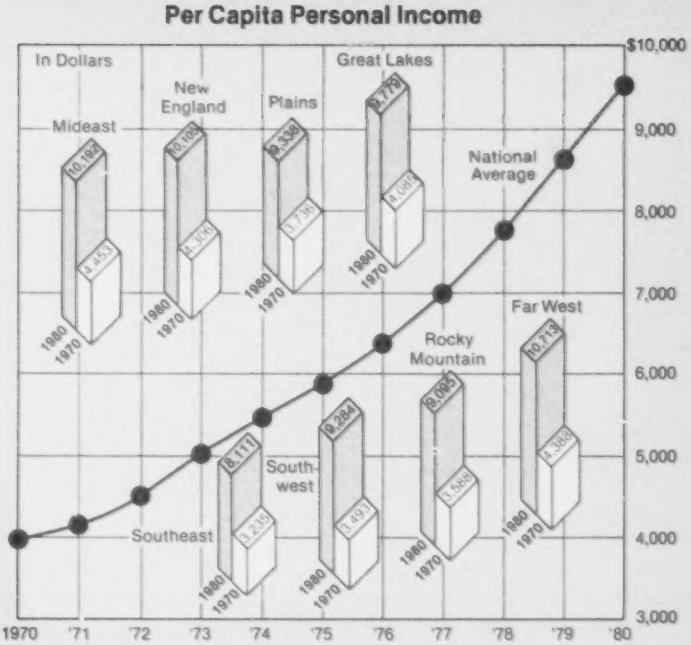
Nos. 1914-1915

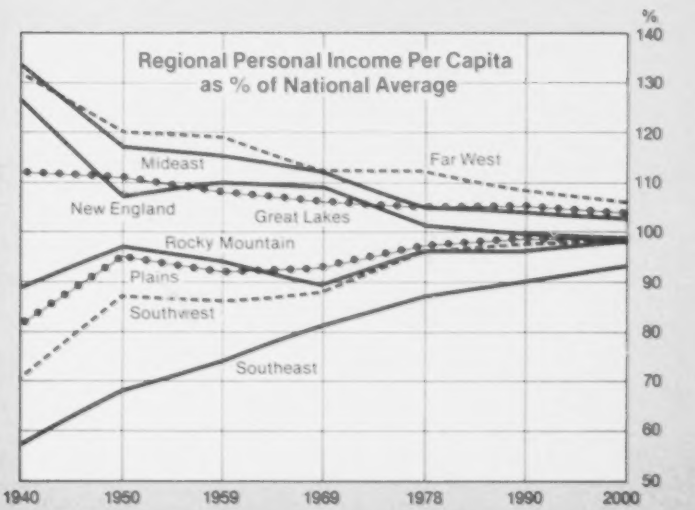
November, 1981

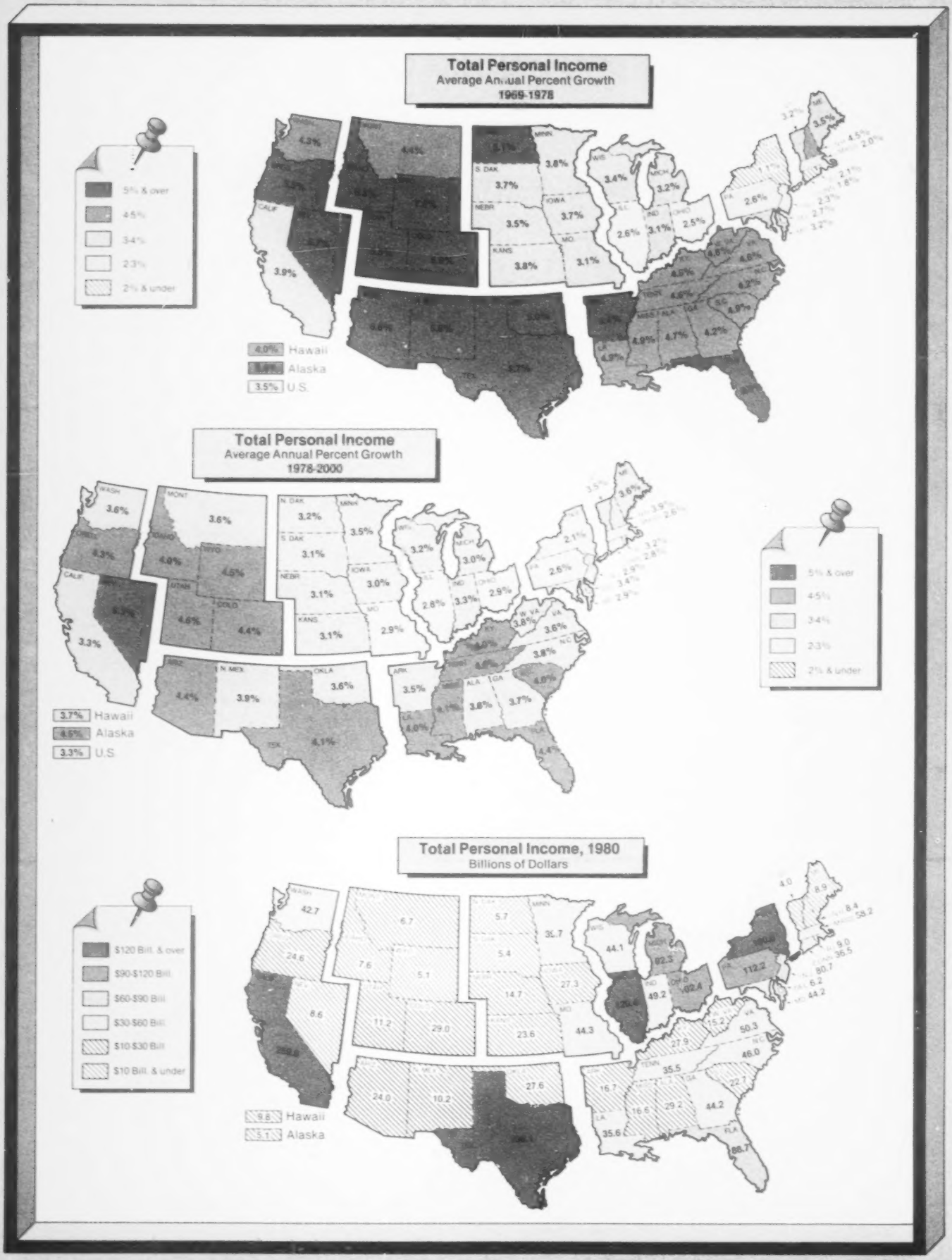
The Bureau of Economic Analysis has recently released regional and state projections of personal income, population, earnings and employment to the year 2000. The projections, which are based on actual data through 1978, are "an extension of past economic relationships and assume no major policy changes." The projections indicate that total U.S. personal income, expressed in constant dollars, will trend up at 3.8% per year from 1978 to 1990, and 2.8% from 1990 to 2000; this compares with an average annual increase of 3.5% during the 1970s. Population growth will slow down. On a per capita basis, real personal income is projected to trend up at 2.8% per year in the 1980's and 2.1% in the 1990's, compared with 2.6% in the 1970's. Per capita real income is a rough measure of the living standard.

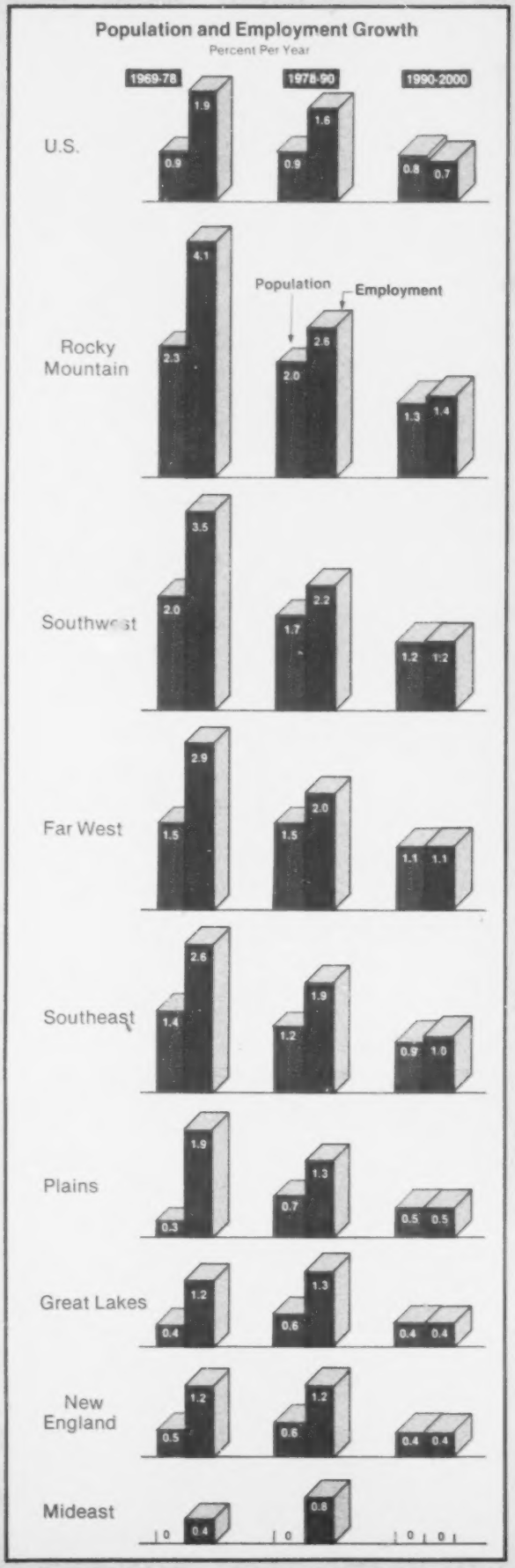
There is a close relationship between regional and national economies; as a result, personal income expansion in most regions moves roughly parallel with the national experience. Nevertheless, there are sizable state and regional growth differentials. As the chart below shows, average per capita growth rates will be considerably more alike in the 1980's and 1990's, ranging from 2.8% in the Southeast to 2.2% in the Far West, than they were in the 1970's, when the range was from 3.7% in the Southwest to 1.7% in New England. (The composition of the regions is shown in the maps on page 2.) The absolute levels of per capita income continue to be lower in the South and

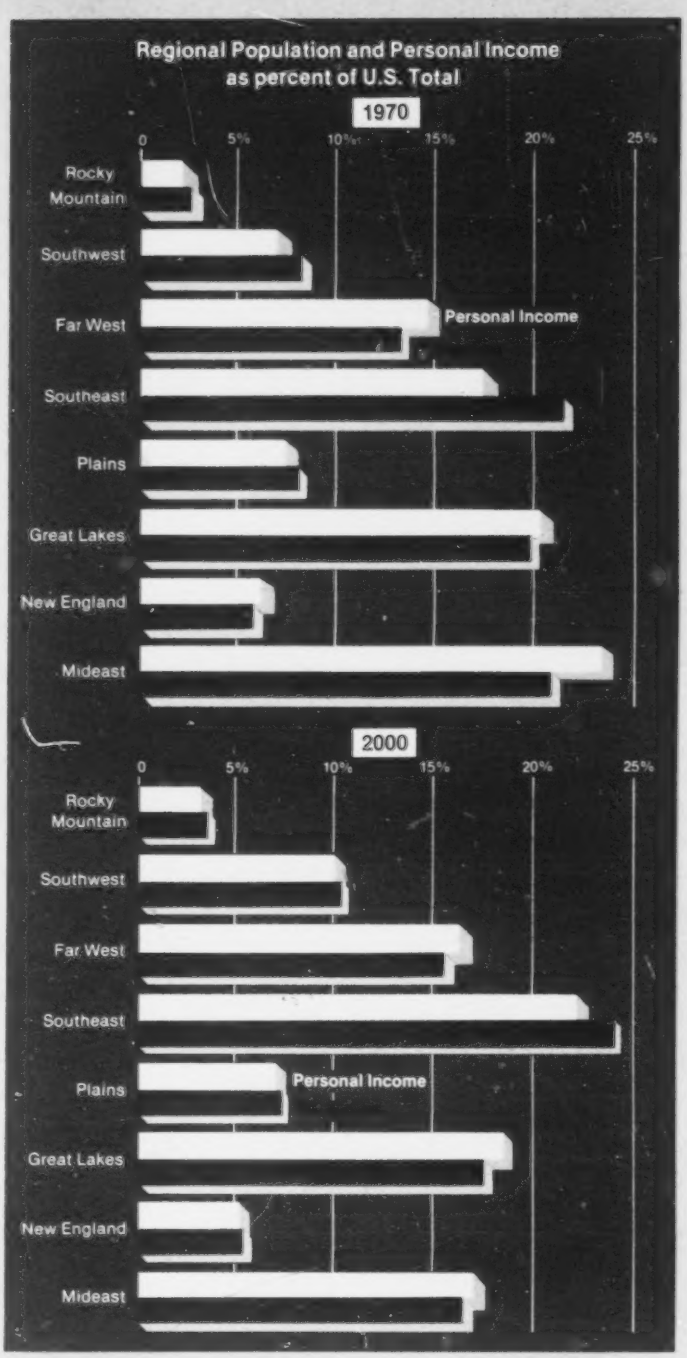







Total Personal Income
Average Annual Percent Growth
1969-1978
5% & over
4-5%
3-4%
2-3%
2% & under
4.0% Hawaii
3.5% Alaska
3.5% U.S.
Total Personal Income
Average Annual Percent Growth
1978-2000
5% & over
4-5%
3-4%
2-3%
2% & under
3.7% Hawaii
4.5% Alaska
3.3% U.S.
Total Personal Income, 1980
Billions of Dollars
$120 Bill. & over
$90-$120 Bill.
$60-$90 Bill.
$30-$60 Bill.
$10-$30 Bill.
$10 Bill. & under
9.8 Hawaii
5.1 Alaska





West than in the older industrial states of the East and North. However, the lower income levels have not deterred sharp southward and westward population shifts. And despite the inflow of people, per capita income is rising rapidly in those regions because their aggregate economic growth rates are so strong. The result of these trends is that regional levels of per capita real income are converging. By the year 2000, all are expected to be within 10% of the national average. In Mississippi, the lowest income state, per capita real income in 1978 was 29% below the U.S. average; the shortfall in 2000 is projected at 19 percent. The highest income state is Alaska.

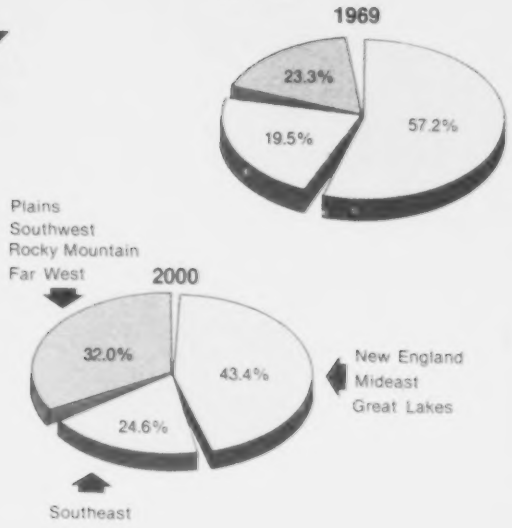
National population growth is projected to average 0.8% per year in the 1980's and 1990's, down slightly from 0.9% between

Industries with Fastest Employment Growth, 1978-2000 By Region

Percent Per Year

	Finance	Services	Construction	Wholesale Trade	Retail Trade	Durables Manufacturing	Mining	Forestry, Fishery, etc.
	1.8	1.8	1.2	1.2	1.4		1.2	
New England	1.4	1.3	1.4					1.4
Mideast	0.9	1.2	1.2				1.6	
Great Lakes	1.6	1.7	1.1		1.1		1.6	
Plains	1.7	1.7			1.1	1.4		
Southeast	2.5	2.0			1.9	1.8		
Southwest	2.5	2.3		2.0	2.0	2.9		
Rocky Mountain	3.0	2.8				2.6	3.2	
Far West	2.1	2.2			1.7	1.6		

Geographic Shift of Manufacturing Employment, 1969-2000



1969 and 1978. Employment growth, which averaged 1.9% annually during the 1970's, will slow to 1.6% in this decade and to 0.7% from 1990 to 2000. The convergence of the population and employment growth rates reflects the aging of the population; that is, the surge of the baby-boom generation into the ranks of the employed is over.

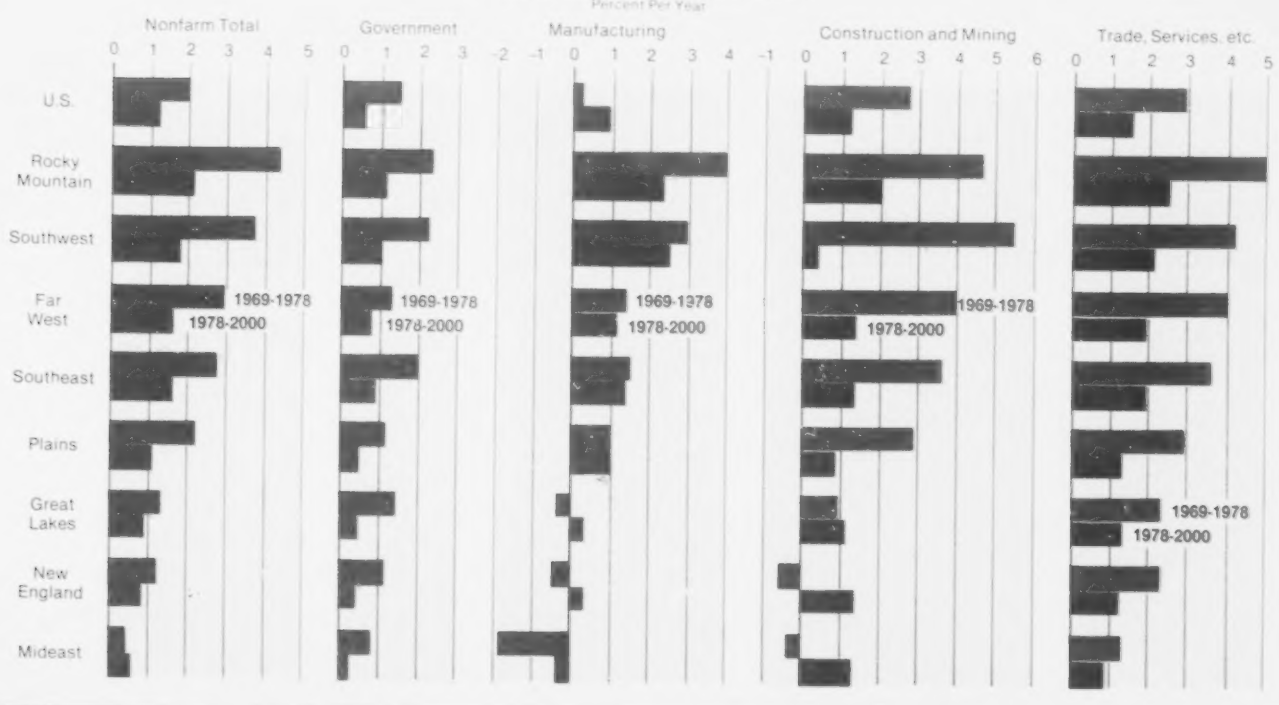
Finance and the services will be among the fastest growing industries in every region in the next two decades. Durables manufacturing will continue to shift toward the South and West, lured by lower wages, taxes, energy and land costs, and it is projected to be among the fastest growing industries in the sunbelt regions.

Eva Culen

Sources: U.S. Department of Commerce, Bureau of Economic Analysis; The Conference Board.

Regional Employment Growth

Percent Per Year



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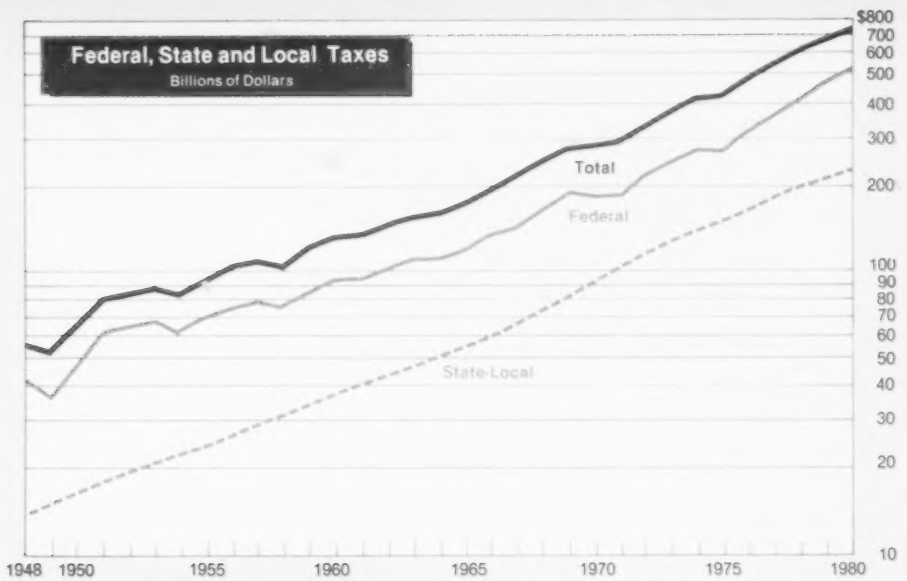
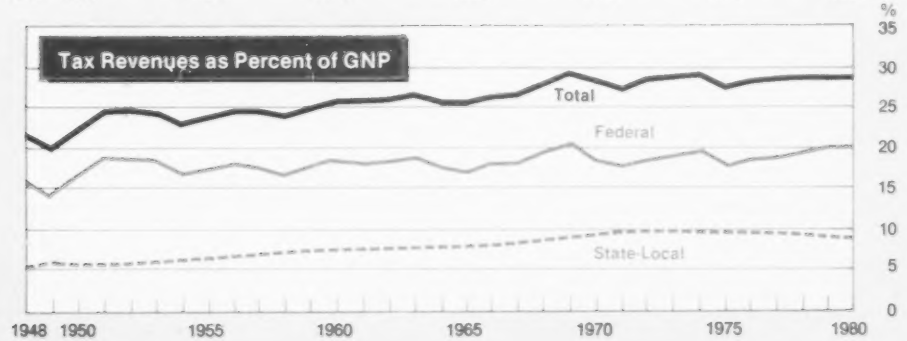
Perspective on Taxes

Economic Road Maps
Nos. 1916-1917

December, 1981

Federal, state and local tax revenues were $751 billion in 1980, and will be at least $100 billion higher in 1981. The Federal Government accounts for about 70% of the total. The two largest taxes in revenue terms are both federal: the federal personal income tax, which raised $251 billion in 1980, and federal social insurance taxes, which were $153 billion. State and local sales taxes amounted to $83 billion in 1980, making them third in revenue terms. Social insurance taxes have been the fastest growing federal revenue source over the past three decades. At the state-local level, personal income tax revenues have been the fastest growing, reflecting not only growth of taxable incomes but also growth in the number of jurisdictions levying such a tax. The rise in state and local property taxes has slowed in the last several years; at $67.5 billion in 1980, they were well below sales taxes.

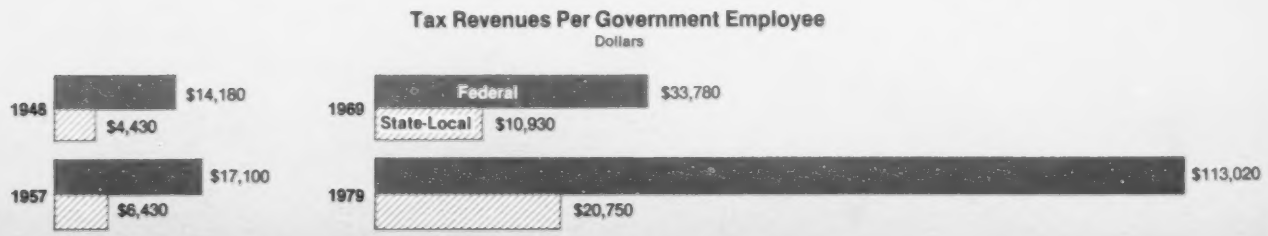


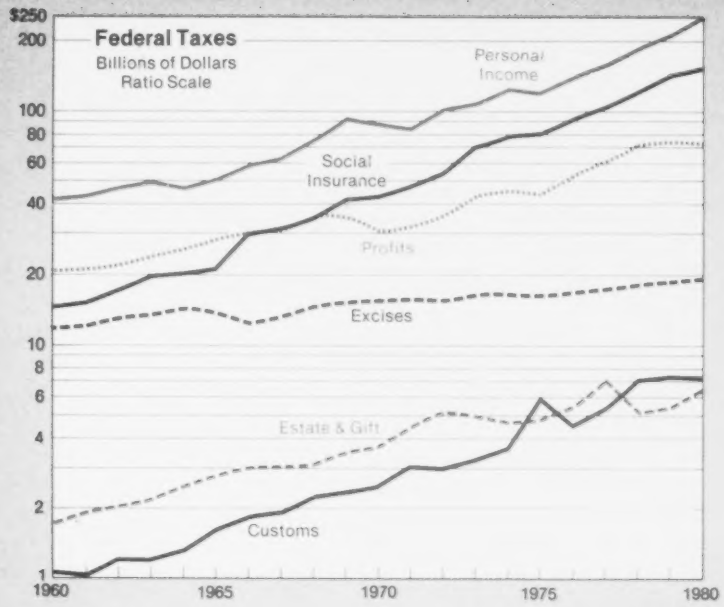


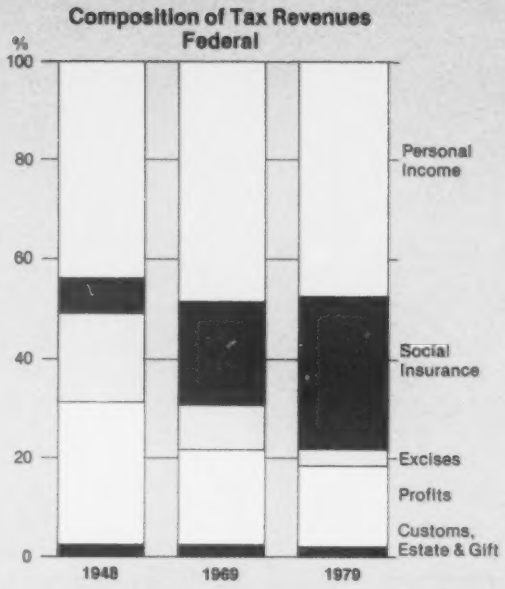
Federal taxes in 1980 equaled 19.7% of the GNP and state-local taxes 8.9%, making a total ratio of 28.6 percent. The state-local ratio has drifted off from its peak of nearly 10% in the early 1970's, but the federal ratio has risen substantially in recent years. In 1981, the ratio of federal taxes to GNP will probably reach 21%, a record. The previous high was 20.1% in 1969.

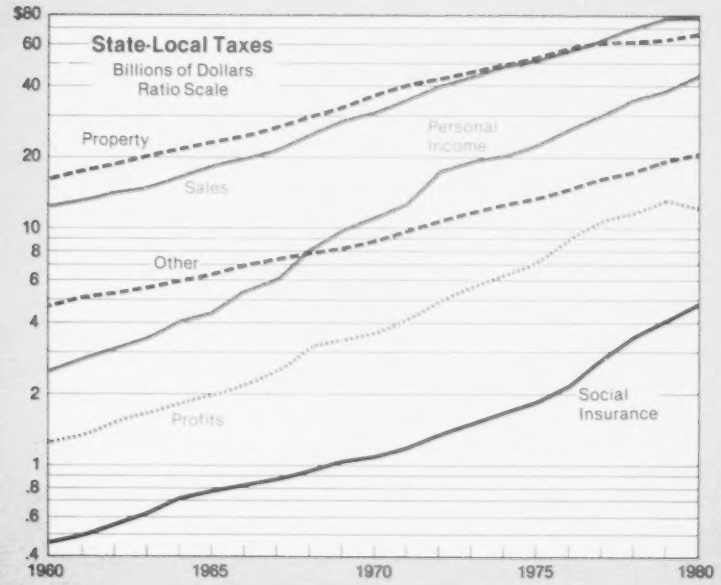
These tax data do not include payments into federal, state and local government employee retirement systems, the railroad retirement system, or social security recipients' payments for supplementary hospital insurance. These payments (about $45 billion in 1980) are excluded on the theory that those making them do not think of them as taxes.

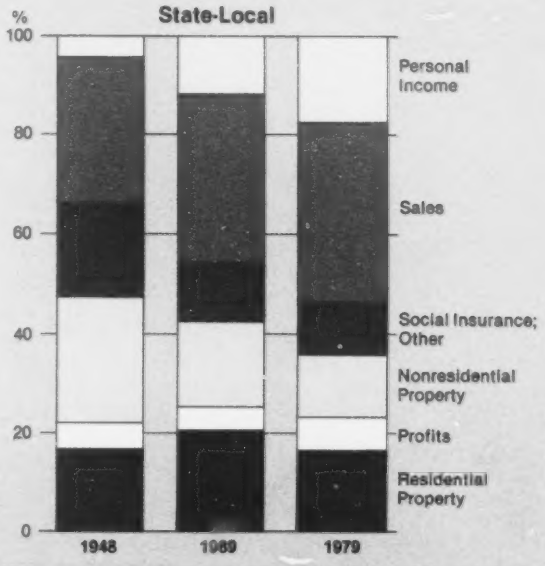
Property taxes rise quite smoothly through time (chart on page 2). Taxes on sales, corporate profits, and personal income, on the other hand, are sensitive to the business cycle. This sensitivity

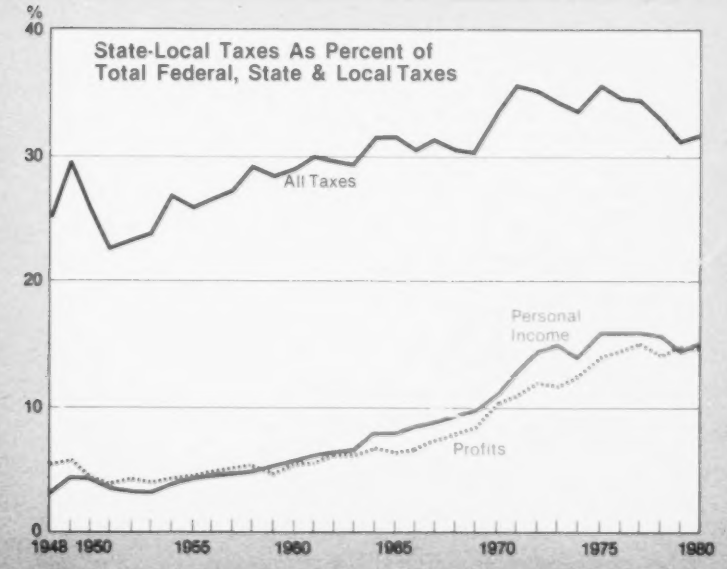








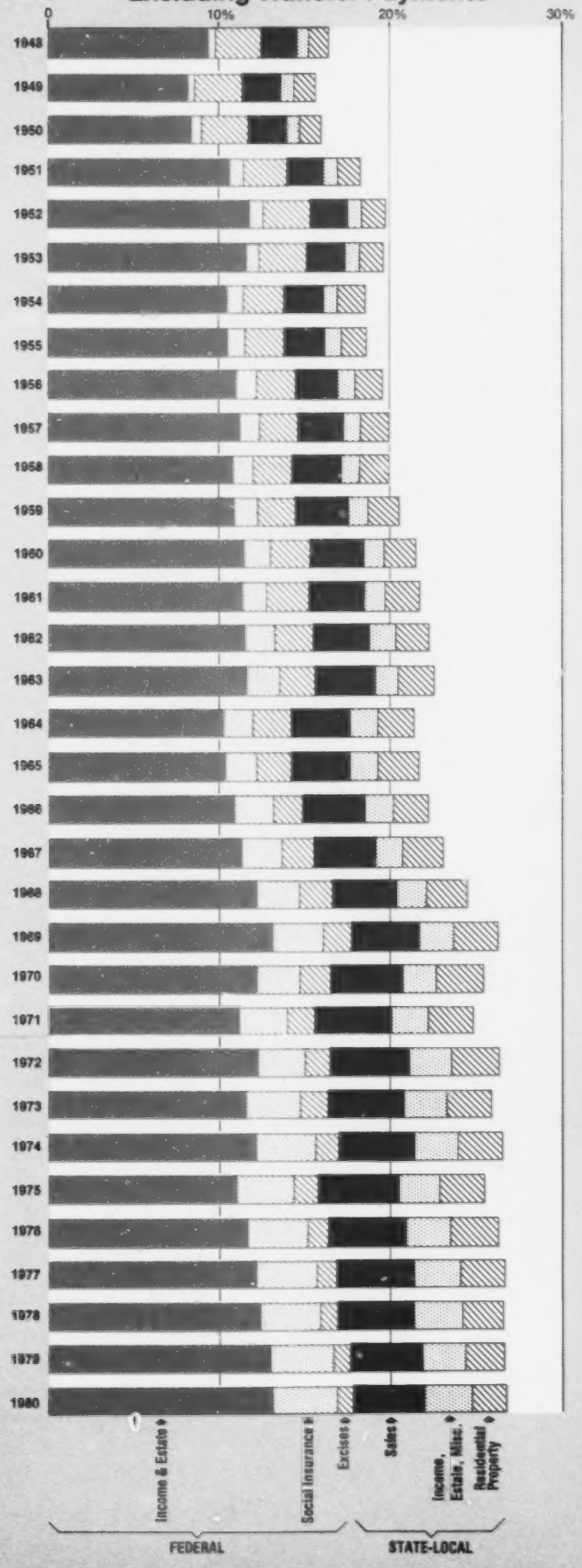




is quite evident in federal taxes, although inflation has dampened the effect by pushing taxable incomes up even in economic slumps. The cyclical pattern is less clear in state-local taxes, in part because of the uptrend due to growth over time in the number of jurisdictions taxing income and profits.

Federal social insurance taxes grew about 13½% per year, on average, in the three postwar decades; personal income taxes about 8½% per year; and the total of other federal taxes about 5½% per year. The result was an increase in the relative importance of social insurance taxes, from 7% of federal taxes in 1948 to 30% in 1979, offset by a decline in the importance of profit and excise taxes. The importance of personal income taxes was quite stable over these years. The three years used for the charts of tax composition (above)

Taxes on Persons as Percent of Pretax Personal Income Excluding Transfer Payments



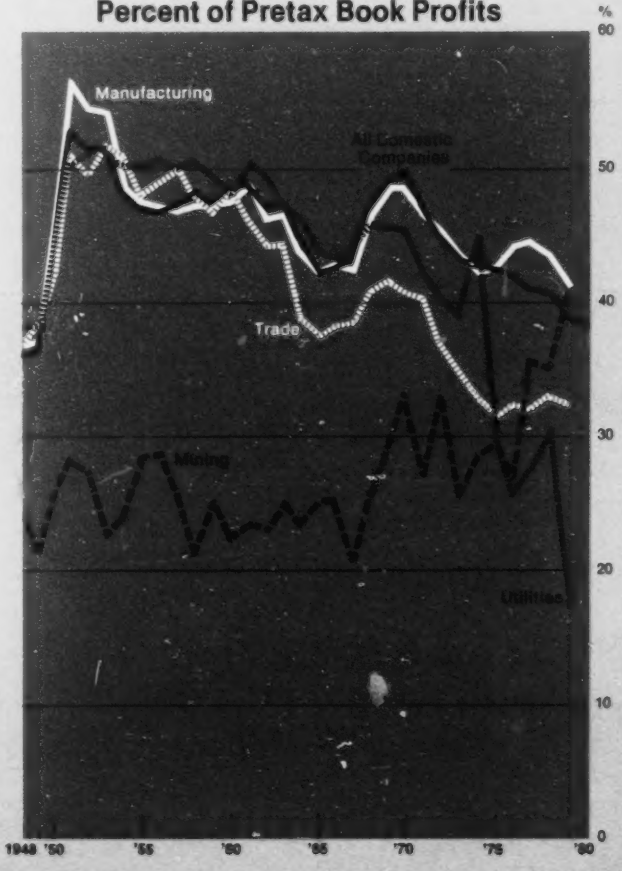
were chosen because all three were more or less peak years of the business cycle. Fast growth in state-local personal income taxes pushed them from 4% of the state-local total in 1948 to 18% in 1979. Through much of the postwar era, state-local taxes grew faster than federal taxes, so that the state-local share of total taxes increased (lower chart, page 2). In part, this reflected growth in the number of states and localities with certain taxes. Twenty years ago, for instance, only 33 states had a personal income tax and 37 had a profits tax, while in 1980 the figures were 44 and 46 states, respectively.

The bars on this page are an approximation of the tax burden on persons. The burden is calculated using those taxes that appear to fall most directly on persons, and dividing them by personal income excluding transfer income; the latter is excluded because it is not part of the tax base. The burden in 1980 was 27%, breaking down into 18% federal and 9% state-local. The postwar low was 16% in 1949 and 1950. There are no state-by-state data directly comparable to the national data used on this page, but a reasonably similar calculation is shown on the map (page 4). The major incomparability is that local taxes on profits and state-local taxes on nonresidential property cannot be excluded from the state-by-state tax burden calculations. The highest and lowest 1979 burdens were, respectively, 17.6% in New York, and 9.5% in Texas. The national average, calculated this way, was 12.2 percent.

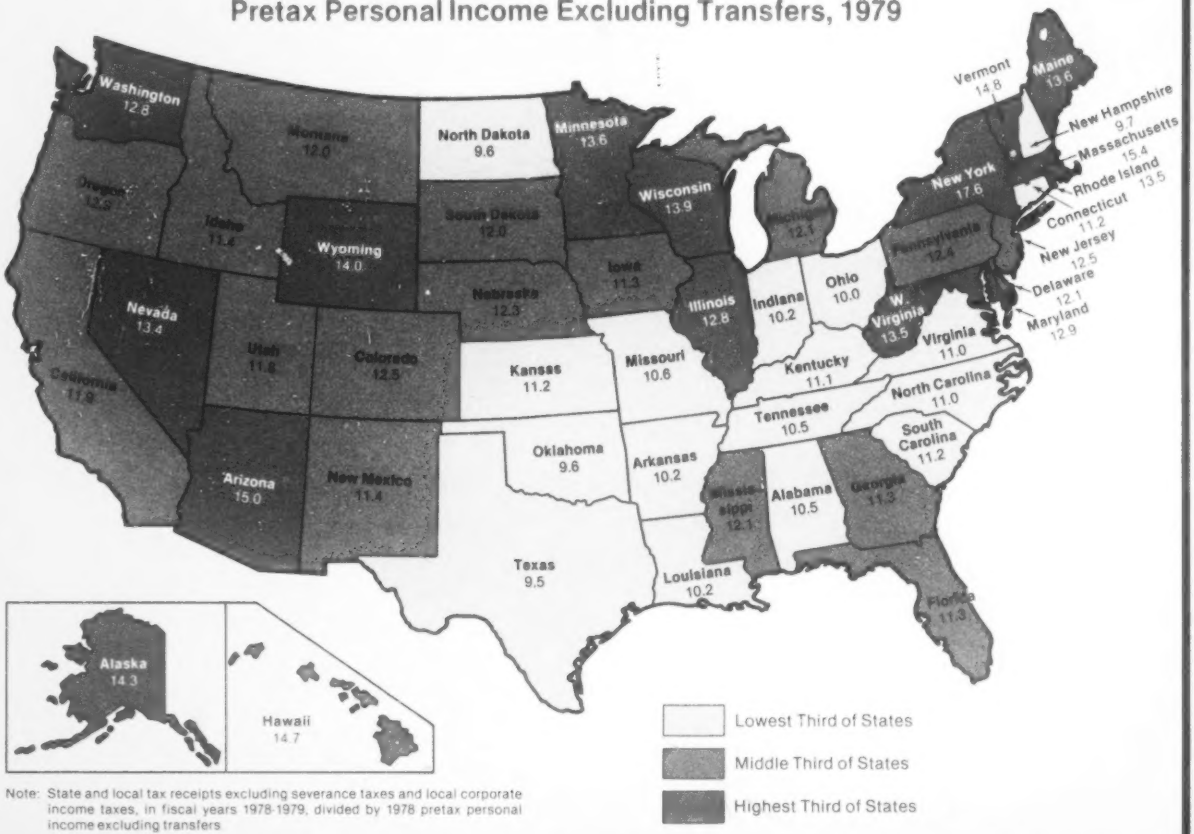
Lora S. Collins

Sources: Bureau of the Census; Bureau of Economic Analysis; The Conference Board.

Corporate Profits Taxes as Percent of Pretax Book Profits



State and Local Taxes as Percent of Pretax Personal Income Excluding Transfers, 1979



Note: State and local tax receipts excluding severance taxes and local corporate income taxes, in fiscal years 1978-1979, divided by 1978 pretax personal income excluding transfers.

Importance of Three Major Taxes, as Percent of Total State-Local Taxes

Property: Residential and Nonresidential
Sales: General Sales Taxes
Income: Personal and Corporate

	Property	Sales	Income
ALA.	12	32	21
ALAS.	32	4	36
ARIZ.	35	34	15
ARK.	21	27	24
CAL.	25	29	30
COLO.	34	30	31
CONN.	45	23	10
DEL.	16	0	46
FLA.	32	28	5
GA.	28	27	25
HAW.	16	39	28
IDA.	32	19	26
ILL.	35	24	20

	Property	Sales	Income
IND.	33	32	19
IOWA	38	16	27
KANS.	41	20	21
KY.	18	23	30
LA.	13	36	14
ME.	38	23	18
MD.	26	16	37
MASS.	46	11	31
MICH.	36	18	33
MINN.	28	14	36
MISS.	22	39	16
MO.	28	28	22

	Property	Sales	Income
MONT.	45	0	25
NEB.	43	20	18
NEV.	32	26	0
N.H.	59	0	11
N.J.	47	14	17
N.M.	16	38	11
N.Y.	35	19	32
N.C.	23	21	31
N.D.	34	22	16
OHIO	34	19	25
OKLA.	20	22	20
OREG.	38	0	4

	Property	Sales	Income
PA.	25	18	30
R.I.	41	18	23
S.C.	22	26	28
S.D.	46	29	1
TENN.	23	41	7
TEX.	36	26	0
UTAH	29	32	24
VT.	40	9	24
VA.	27	17	28
WASH.	31	43	0
W.VA.	17	39	17
WIS.	34	17	35
WYO.	40	28	0

ECONOMIC ROAD MAPS

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